

LISTING OF CLAIMS

The following is a copy of Applicant's claims that identifies language being added with underlining ("___") and language being deleted with strikethrough ("---"), as is applicable:

1. (Original) A semiconductor device comprising:
a first electrode component;
a second electrode component;
a first layer comprising at least a portion of the first electrode component and at least a portion of the second electrode component;
a second layer having a portion comprising deposited semiconductor material contacting the first and second electrode components; and
a third layer comprising a substrate,
wherein the first, second and third layers are arranged in order such that the second layer is positioned between the first layer and the third layer and
wherein the first and second electrode components comprise electro-deposited metal.

2-4. (Cancelled)

5. (Previously Presented) A semiconductor device as claimed in claim 1, wherein the deposited semiconductor material comprises organic semiconductor material.

6. (Cancelled).

7. (Previously Presented) A semiconductor device as claimed in claim 1, wherein the semiconductor material is embedded in the device and overlain by the first layer.

8. (Previously Presented) A semiconductor device as claimed in claim 1 wherein the substrate is flexible.

9. (Previously Presented) A semiconductor device as claimed in claim 1, wherein the device is a thin film transistor having a channel in the semiconductor material, a source electrode as the first electrode, a drain electrode as the second electrode, and a gate electrode, wherein the source, drain and gate electrodes are formed from electro-deposited metal

10. (Previously Presented) A semiconductor device as claimed in claim 9, wherein the first layer comprises the source electrode and the drain electrode and the gate electrode lies in a fourth layer between the second layer and the third layer, the semiconductor device further comprising a fifth layer, comprising a continuous dielectric layer, between the fourth layer and the third layer.

11-13. (Cancelled).

14. (Previously Presented) A semiconductor device as claimed in claim 10, wherein the source and drain electrodes each partially overlap the gate electrode but are separated therefrom by the semiconductor material and dielectric material.

15-17. (Cancelled).

18. (Original) A semiconductor device as claimed in claim 9, wherein the first layer comprises a first portion of the source electrode, a first portion of the drain electrode and the gate electrode.

19. (Original) A semiconductor device as claimed in claim 18, wherein the second layer comprises a second portion of the source electrode contacting the semiconductor material and a second portion of the drain electrode contacting the semiconductor material.

20-21. (Cancelled).

22. (Previously Presented) A semiconductor device as claimed in claim 18, further comprising dielectric material in the second layer between the semiconductor material and the gate electrode in the first layer.

23. (Previously Presented) A semiconductor device as claimed in claim 18, wherein the first layer has a substantially planar surface forming a surface of the semiconductor device incorporating portions of the source, drain and gate electrodes.

24. (Previously Presented) A substrate for a display device comprising a plurality of semiconductor devices as claimed in claim 1.

25. (Withdrawn) A method for use in forming a layered semiconductor device comprising:

forming a transfer layer on a conductive carrier by at least the deposition of insulating material on the conductive carrier and then the electro-deposition of metal onto at least first and second portions of the conductive carrier, selectively exposed through the insulating material, to form first and second metal portions;

fixing the transfer layer to a substrate portion of the device; and

removing the conductive carrier from the device.

26-28. (Cancelled).

29. (Withdrawn) A method as claimed in claim 25, wherein the step of fixing the transfer layer to a substrate portion embeds semiconductor material within the device.

30. (Cancelled).

31. (Withdrawn) A method as claimed in claim 25, wherein the formation of the substrate portion comprises:

forming a gate transfer layer on a second conductive carrier by depositing insulating material on the second conductive carrier and then electro-depositing metal onto a portion of the second conductive carrier, selectively exposed through the insulating material;

fixing the gate transfer layer to a substrate; and

removing the conductive carrier from the device.

32-34. (Cancelled).

35. (Withdrawn) A method as claimed in claim 31, further comprising forming a dielectric layer over the gate transfer layer after it is fixed to the substrate.

36. (Withdrawn) A method as claimed in claim 35, further comprising depositing an adhesive insulating layer over the dielectric layer and selectively removing the adhesive insulating layer from over the gate electrode to form a well.

37-41. (Cancelled).

42. (Withdrawn) A method as claimed in claim 25, wherein the transfer layer is formed by:

a) selectively forming insulating material on portions of the conductive carrier, to expose first, second and third portions of the conductive carrier;

b) electro-depositing metal onto the first, second and third portions of the conductive carrier to form first, second and third metal portions;

c) depositing dielectric material over at least the second metal portion;

d) electro depositing metal on the first and third metal portions; and

e) depositing semiconductor material over the dielectric layer.

43. (Cancelled).

44. (Withdrawn) A method as claimed in claim 42, wherein the step e) precedes step d).

45-48. (Cancelled)

49. (Withdrawn) A method for use in forming a transistor device including a source electrode, a drain electrode and a gate electrode comprising:

electro-depositing metal to form at least a portion of the gate electrode;

electro-depositing metal to form simultaneously at least portions of the source electrode and the drain electrode;

depositing semiconductor material;

transferring at least the source electrode and drain electrode to a substrate.

50-58. (Cancelled).